

Wednesday, August 3, 1859.

Lighthouses

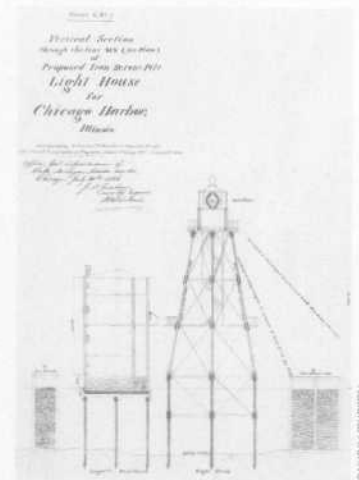


Cape Lookout Lighthouse,
North Carolina.

As early as 1716 on the Atlantic Coast, private parties built lighthouses. Army engineers began supervising lighthouse construction in 1827. In 1831, the Treasury Department placed funds appropriated for lighthouses in the hands of the Chief Engineer. A federal Lighthouse Board, created in 1852, assumed the responsibility for supervising lighthouse construction and inspection. Three engineer officers were members of the original Lighthouse Board. They continued to serve as board members and as lighthouse district inspectors and engineers until Congress abolished the Lighthouse Board in 1910. Since then, engineer officers have undertaken some lighthouse work assignments but not on a regular basis.

In the 19th century, engineer officers designed lighthouses to help mariners weather violent Atlantic storms. Adopting European technology, those officers often innovated to solve particular problems. Major Hartman Bache borrowed from the British engineers the design for the first screw-pile lighthouse in the United States. This type of pile was

ideal for the bottom of the Delaware Bay, since it could be securely twisted into an unstable sea floor. To fend off the floating ice that threatened a structure at Brandywine Shoal, Delaware, Bache installed a fence, consisting of screw-piles, five inches in diameter, around the lighthouse. He then added an outer fence and the space between the two fences was platformed over. Tons of stone riprap were dumped around the structure to provide additional protection. Engineering advances later made it possible to erect sturdy lighthouses on the reefs around the Florida Keys, the most famous of these being the Sombrero Key lighthouse, built by Lieutenant George Meade seven years before he met General Robert E. Lee at Gettysburg in July 1863.



Proposed iron screw-pile
lighthouse for Chicago
Harbor.

Building Minot's Ledge
lighthouse off Cohasset,
Massachusetts, August 3,
1859.